Amended Claims

Claims 1-26 (canceled).

27. (previously presented) A method for treating diabetic retinopathy in a mammal in need of such treatment, wherein: eomprising

the method comprises administering an effective $\alpha_v \beta_3$ inhibiting amount comprising from about 0.01 mg to about 1000 mg per kilogram of body weight of a compound or pharmaceutically acceptable salt thereof to the mammal;

the compound corresponds in structure to [[of]] the formula:

$$A \xrightarrow{\left(\begin{matrix} Y^3 \\ Z^3 \end{matrix}\right)_t} B \xrightarrow{\left(\begin{matrix} Q \\ Z^4 \end{matrix}\right)} S \xrightarrow{\left(\begin{matrix} R \\ H \end{matrix}\right)} COR$$

or a pharmaceutically acceptable salt thereof, wherein

B is selected from the group consisting of -CONR⁵⁰- and -SO₂NR⁵⁰-;

A is selected from the group consisting of:

 Y^1 is selected from the group consisting of N-R², O, and S; as to R^2 :

R² is selected from the group consisting of H; alkyl; aryl; hydroxy; alkoxy; cyano; nitro; amino; alkenyl; alkynyl; alkyl optionally substituted with one or more substituents substitutent selected from the group consisting of lower alkyl, halogen, hydroxyl, haloalkyl, cyano, nitro, carboxyl, amino, alkoxy, aryl, [[or]] aryl optionally substituted with one or more halogen, haloalkyl, lower alkyl, alkoxy, cyano, alkylsulfonyl, alkylthio, nitro, carboxyl, amino, hydroxyl, sulfonic acid, sulfonamide, aryl, fused aryl, monocyclic heterocycles, and [[or]] fused monocyclic

heterocycles; aryl optionally substituted with one or more substituent substituents selected from the group consisting of halogen, haloalkyl, hydroxy, lower alkyl, alkoxy, methylenedioxy, ethylenedioxy, cyano, nitro, alkylthio, alkylsulfonyl, sulfonic acid, sulfonamide, carboxyl derivatives, amino, aryl, fused aryl, monocyclic heterocycles, and fused monocyclic heterocycles heterocycles; monocyclic heterocycles; and moneyelie monocyclic heterocycles optionally substituted with one or more substitutent substituents selected from the group consisting of halogen, haloalkyl, lower alkyl, alkoxy, amino, nitro, hydroxy, carboxyl derivatives, cyano, alkylthio, alkylsulfonyl, sulfonic acid, sulfonamide, aryl, and [[or]] fused aryl; or

R² and taken together with R⁷, together with the atoms to which they are bonded, form: [[forms]]

a 4-12 membered dinitrogen containing heterocycle optionally substituted with one or more substituent substituents selected from the group consisting of lower alkyl, hydroxy, and phenyl; or R² taken together with R² forms

a 5 membered heteroaromatic ring; or R²-taken together with R⁷-forms

a 5 membered heteroaromatic ring fused with a phenyl group;

as to R^7 :

R⁷ is (when not taken together with R²) and R⁸ are independently selected from the group consisting of H; alkyl; alkenyl; alkynyl; aralkyl; cycloalkyl; bicycloalkyl; aryl; acyl; benzoyl; alkyl optionally substituted with one or more substituent substituents selected from the group consisting of lower alkyl, halogen, hydroxy, haloalkyl, cyano, nitro, carboxyl derivatives, amino, alkoxy, thio, alkylthio, sulfonyl, aryl, aralkyl, aryl optionally substituted with one or more substituent

> substituents selected from the group consisting of halogen, haloalkyl, lower alkyl, alkoxy, methylenedioxy, ethylenedioxy, alkylthio, haloalkylthio, thio, hydroxy, cyano, nitro, carboxyl derivatives, aryloxy, amido, acylamino, amino, alkylamino, dialkylamino, trifluoroalkoxy. trifluoromethyl, sulfonyl, alkylsulfonyl, haloalkylsulfonyl, sulfonic acid, sulfonamide, aryl, fused aryl, moneyelie monocyclic heterocycles; aryl optionally substituted with one or more substituent substituents selected from the group consisting of halogen, haloalkyl, lower alkyl, alkoxy, aryloxy, amino, nitro, hydroxy, carboxyl derivatives, cyano, alkylthio, alkylsulfonyl, aryl, and fused aryl; monocyclic and bicyclic heterocyclicalkyls; -SO₂R¹⁰; -wherein R¹⁰ is selected from the group consisting of alkyl, aryl and monocyclic heterocycles, all optionally substituted with one or more substituent selected from the group consisting of halogen, haloalkyl alkyl, alkoxy, cyano, nitro, amino, acylamino, trifluoroalkyl, amido, alkylaminosulfonyl, alkylsufonyl, alkylsulfonylamino, alkylamino, dialkylamino, trifluoromethylthio, trifluoroalkoxy, trifluoromethylsulfonyl, aryl, aryloxy, thio, alkylthio,

and monocyclic heterocycles; and ——C—R¹⁰;

R⁷ [[NR⁷]] and R⁸, [[taken]] together with the nitrogen to which they are bonded, form a 4-12 membered mononitrogen containing moneyelie monocyclic or bicyclic ring, wherein the ring:

is optionally substituted with one or more
 substitutent substituents selected from the group
 consisting of lower alkyl, carboxyl derivatives, aryl, and
 [[or]] hydroxy; and wherein said ring

optionally contains (in addition to the nitrogen) a heteroatom selected from the group consisting of O, N, and S; or

R⁷ and R², together with the atoms to which they are bonded, form:

a 4-12 membered dinitrogen containing

heterocycle optionally substituted with one or more

substituents selected from the group consisting of lower
alkyl, hydroxy, and phenyl;

a 5 membered heteroaromatic ring; or
a 5 membered heteroaromatic ring fused with a
phenyl group;

as to R8:

R⁸ is selected from the group consisting of H; alkyl; alkenyl; alkynyl; aralkyl; cycloalkyl; bicycloalkyl; aryl; acyl; benzoyl; alkyl substituted with one or more substituents selected from the group consisting of lower alkyl, halogen, hydroxy, haloalkyl, cyano, nitro, carboxyl derivatives, amino, alkoxy, thio, alkylthio, sulfonyl, aralkyl, aryl optionally substituted with one or more substituents selected from the group consisting of halogen, haloalkyl, lower alkyl, alkoxy, methylenedioxy, ethylenedioxy, alkylthio, haloalkylthio, thio, hydroxy, cyano, nitro, carboxyl derivatives, aryloxy, amido, acylamino, amino, alkylamino, dialkylamino, trifluoroalkoxy, trifluoromethyl, sulfonyl, alkylsulfonyl, haloalkylsulfonyl, sulfonic acid, sulfonamide, aryl, fused aryl, monocyclic heterocycles; aryl substituted with one or more substituents selected from the group consisting of halogen, haloalkyl, lower alkyl, alkoxy, aryloxy, amino, nitro, hydroxy, carboxyl derivatives, cyano, alkylthio, alkylsulfonyl, aryl, and fused aryl; monocyclic and bicyclic heterocyclicalkyls; -SO₂R¹⁰;

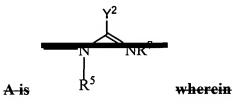
> R⁸ and R⁷, together with the nitrogen to which they are bonded, form a 4-12 membered mononitrogen containing monocyclic or bicyclic ring, wherein the ring:

> > is optionally substituted with one or more
> > substituents selected from the group consisting of lower
> > alkyl, carboxyl derivatives, aryl, and hydroxy; and
> > optionally contains (in addition to the nitrogen) a
> > heteroatom selected from the group consisting of O, N,
> > and S;

R¹⁰ is selected from the group consisting of alkyl, aryl, and monocyclic heterocycles, wherein:

any such group is optionally substituted with one or more substituents selected from the group consisting of halogen, haloalkyl alkyl, alkoxy, cyano, nitro, amino, acylamino, trifluoroalkyl, amido, alkylaminosulfonyl, alkylsulfonyl, alkylsulfonylamino, alkylamino, dialkylamino, trifluoromethylthio, trifluoroalkoxy, trifluoromethylsulfonyl, aryl, aryloxy, thio, alkylthio, and monocyclic heterocycles; wherein R¹⁰ is defined above; or

R⁵ is selected from the group consisting of H, alkyl, alkenyl, alkynyl, benzyl, and phenethyl phenylethyl; or



as to Y² and R^{7A}:

Y² and R^{7A} are independent substituents such that:

Y² is selected from the group consisting of alkyl; cycloalkyl; bicycloalkyl; aryl; monocyclic heterocycles; alkyl optionally substituted with aryl which can also be optionally substituted with one or more substitutent substitutents selected from the group consisting of halo,

haloalkyl, alkyl, nitro, hydroxy, alkoxy, aryloxy, aryl, <u>and</u> [[or]] fused aryl; aryl optionally substituted with one or more substituent substituents selected from the group consisting of halo, haloalkyl, hydroxy, alkoxy, aryloxy, aryl, fused aryl, nitro, methylenedioxy, ethylenedioxy, <u>and</u> [[or]] alkyl; alkylnyl alkynyl; alkenyl; -SR⁹, and -OR⁹-; and

R^{7A} is selected from the group consisting of H; alkyl; alkenyl; alkynyl; aralkyl; cycloalkyl; bicycloalkyl; aryl; acyl; benzoyl; alkyl substituted with one or more substituents selected from the group consisting of lower alkyl, halogen, hydroxy, haloalkyl, cyano, nitro, carboxyl derivatives, amino, alkoxy, thio, alkylthio, sulfonyl, aryl, aralkyl, aryl substituted with one or more substituents selected from the group consisting of halogen, haloalkyl, lower alkyl, alkoxy, methylenedioxy, ethylenedioxy, alkylthio, haloalkylthio, thio, hydroxy, cyano, nitro, carboxyl derivatives, aryloxy, amido, acylamino, amino, alkylamino, dialkylamino, trifluoroalkoxy, trifluoromethyl, sulfonyl, alkylsulfonyl, haloalkylsulfonyl, sulfonic acid, sulfonamide, aryl, fused aryl, monocyclic heterocycles; aryl substituted with one or more substituents selected from the group consisting of halogen, haloalkyl, lower alkyl, alkoxy, aryloxy, amino, nitro, hydroxy, carboxyl derivatives, cyano, alkylthio, alkylsulfonyl, aryl, and fused aryl; monocyclic and bicyclic heterocyclicalkyls;

$$-SO_2R^{10}$$
; and $----C$ $---R^{10}$; wherein

Y² is -SR⁹ and -OR⁹- such that R^{7A} and R⁹, together with the atoms to which they are bonded, form a 4-12 membered mononitrogen containing sulfur or oxygen containing heterocyclic ring; or

Y² is carbon such that Y² and R^{7A}, together with the atoms to which they are bonded, form a 4-12 membered mononitrogen containing ring optionally substituted with alkyl, aryl, or hydroxy; as to R⁹:

R⁹ is selected from the group consisting of H; alkyl; aralkyl; aryl; alkenyl; and alkynyl; or

R⁹ and R^{7A}, [[taken]] together with the atoms to which they are bonded, form R⁷-forms a 4-12 membered mononitrogen containing sulfur or oxygen containing heterocyclic ring;

and R^5 and R^7 are as defined above; or Y^2 (when Y^2 is carbon) taken together with R^7 forms a 4-12 membered mononitrogen containing ring optionally substituted with alkyl, aryl, or hydroxy;

 Z^1 , Z^2 , Z^4 , and Z^5 are independently selected from the group consisting of H; alkyl; hydroxy; alkoxy; aryloxy; arylalkoxy; halogen; haloalkyl; haloalkoxy; nitro; amino; aminoalkyl; alkylamino; dialkylamino; cyano; alkylthio; alkylsulfonyl; carboxyl derivatives; acetamide; aryl; fused aryl; cycloalkyl; thio; monocyclic heterocycles; fused monocyclic heterocycles; and A, wherein A is defined above;

R⁵⁰ is selected from the group consisting of H and alkyl;

R¹ is selected from the group consisting of H, alkyl, alkenyl, alkynyl, aryl, and aryl, optionally substituted with one or more substituent substituents selected [[form]] from the group consisting of halogen, haloalkyl, hydroxy, alkoxy, aryloxy, aralkoxy, amino, aminoalkyl, carboxyl derivatives, cyano, and nitro;

t is an integer 0 zero, 1, or 2;

R is X-R³; wherein

X is selected from the group consisting of O, S, and NR⁴; , wherein

R³ and R⁴ are independently selected from the group consisting of hydrogen; alkyl; alkenyl; alkynyl; haloalkyl; aryl; arylalkyl; sugars; <u>and</u> steroids and in the case of the free acid, all pharmaceutically acceptable salts thereof; and

 Y^3 and Z^3 are independently selected from the group consisting of H, alkyl, aryl, cycloalkyl, and aralkyl.

Please add the following new claims:

28. (new) A method according to claim 27, wherein the compound corresponds in structure to Formula II:

$$A \xrightarrow{Z^4} Z^5$$

$$R_1 \qquad Q$$

$$R_2 \qquad Q$$

$$R_3 \qquad Q$$

$$R_4 \qquad Q$$

$$R_4 \qquad Q$$

$$R_4 \qquad Q$$

$$R_5 \qquad Q$$

$$R_7 \qquad Q$$

29. (new) A method according to claim 28, wherein A is:

$$\begin{array}{c|c}
 & Y^1 \\
 & X \\
 & X$$

30. (new) A method according to claim 28, wherein A is:

$$--N \qquad NR^{7A}$$

$$R^{5}$$

31. (new) A method according to claim 27, wherein the compound corresponds in structure to Formula III:

32. (new) A method according to claim 31, wherein A is:

$$\begin{array}{c|c}
 & Y^1 \\
 & N \\
 & N \\
 & R^5 \\
 & R^8
\end{array}$$

33. (new) A method according to claim 31, wherein A is:

34. (new) A method according to claim 27, wherein A is:

$$\begin{array}{c|c}
 & & \downarrow^1 \\
 &$$

35. (new) A method according to claim 27, wherein A is: